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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,301	11/21/2000	Toby Walker	450101 02302	6977

20999 7590 10/01/2004

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EXAMINER

TRAN, THAI Q

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,301

Applicant(s)

WALKER ET AL.

Examiner

Thai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claims 1-13 are objected to because of the following informalities:

Regarding claim 1, line 8, the feature "a pair of segments" should be changed to --the pair of segments--; and

Regarding claim 8, line 1, the feature "a video signal processor" should be changed to --a video signal processor apparatus--; and

line 10, the feature "a pair of visual segments" should be changed to --the pair of visual segments--. The remaining claims are dependent on the objected claims 1 and 8 and therefore inherit the deficiencies thereof. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Foote et al (US 6,774,917).

Regarding claim 1, Foote et al discloses a signal processing method (Fig. 2) for detecting and analyzing a pattern reflecting the semantics of the content of a signal, the method comprising steps of:

extracting (video features 208 of Fig. 2, col. 7, lines 1-31), from a segment consisting of a sequence of consecutive frames forming together the signal, at least one features which characterizes the properties of the segment;

calculating (classifier 206 of Fig. 2, col. 7, lines 1-31), using the extracted feature, a criterion for measurement of a similarity between a pair of segments for every extracted feature and measuring a similarity between a pair of segments according to the similarity measurement criterion; and

detecting (col. 33, lines 2-24), according the feature and similarity measurement criterion, two of the segments, whose mutual time gap is within a predetermined temporal threshold and mutual dissimilarity is less than a predetermined dissimilarity threshold, and grouping the segments into a scene consisting of a sequence of temporally consecutive segments reflecting the semantics of the signal content.

Regarding claim 2, Foote et al discloses the claimed wherein the signal is at least one of visual and audio signal included in a video data (video and audio signals discloses in col. 20, lines 40-43).

Regarding claim 3, the claimed wherein at the feature extracting step, a single statistic central value of the plurality of features at different time points in a single

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segment is selected for extraction is met by Gaussian model disclosed in col. 9, lines 14-54.

Regarding claim 4, Foote et al discloses the claimed wherein a statistic value of the similarity between a plurality of segment pairs is used to determine the dissimilarity threshold (step 4204 disclosed in col. 33, lines 7-10).

Regarding claim 5, Foote et al discloses the claimed wherein of the segments, more than at least one segment which could not have been grouped into a scene at the grouping step are grouped into a single scene (the classifier 206 of Fig. 2, col. 7, lines 21-31).

Regarding claim 6, Foote et al discloses the claimed wherein a result of scene detection from arbitrary features acquired at the grouping step and more than at least one result of scene detection for features different from the arbitrary ones, are combined together (the classifier 206 of Fig. 2, col. 7, lines 21-31).

Regarding claim 7, Foote et al discloses the claimed wherein more than at least one result of scene detection from the video signal acquired at the grouping step and more than at least one result of scene detection from the audio signal acquired at the group step, are combined together (the classifier 206 of Fig. 2, col. 7, lines 21-31 and col. 20, lines 40-43).

Apparatus claims 8-13 are rejected for the same reasons as discussed in method claims 1-7 above.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

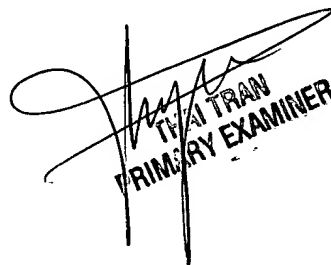
The cited references relate to scene change detection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ


THAI TRAN
PRIMARY EXAMINER